

Federal Communications Commission

(REFEF	RENCE C	OPY - Not for s	ubmissio	on)	
FCC	Form	า 399:			
Rein	nburs	ement Re	eques	st	
Facility	74167	Service: DTV	Call	WVEC	Channel:
ID:			Sign:		

ID:		Sign:
11 (High VHF)	File	0000028089
	Number:	
FRN: 0004336020	Date	10/07
	Submitted:	/2019

Applicant Name, Type, and Contact Information

Applicant Information

Applicant	Address	Phone	Email	Applicant Type
WVEC TELEVISION, INC.	Denise Branson, Sr. Paralegal TEGNA Inc. 8350 Broad Street, Suite 2000 Tysons, VA 22102 United States	+1 (703) 873-6606	dbranson@TEGNA. com	Corporation

Reimbursement Contact Name and Information Reimbursement Contact Information

Applicant	Address	Phone	Email
[Confidential]			

Preparer	Preparer Contact Name and Information				
Contact Information	Applicant	Address	Phone	Email	
	Gary Davis	Gary Davis	+1 (404) 873-	gadavis@tegna.	
	Regional Head of Technology and	8350 Broad	9199	com	
	Operations	Street			
	TEGNA	Suite 2000			
		Tysons, VA			
		22102			
		United States			

Broadcaster	Question	Response
Information and Transition Plan	Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information.	No
	Briefly describe transition plan	WVEC will be transitioning from channel 13 to channel 11 which requires a new primary antenna, transmitter and transmission line as well as an interim antenna and line.

Transmitters	Section	Question	Response
	Transmitter Related Expenses	Do you have transmitter related expenses?	Yes

Auxiliary	Add Transmitter Information				
Transmitter	Section	Question	Response		
	Existing Transmitter Description	Type of change	Purchase New		
		Use	Auxiliary (Backup)		
		Description of Use	Backup full power transmitter		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is this transmitter currently shared with another station?	No		
		Is this transmitter currently in operating condition?	Yes		
	Existing Transmitter	Manufacturer			
	Manufacturer and Type	Model	PTCD20P2I		
		Year	1994		
		Туре	Solid State		
		Solid State Cooling	Air Cooled		
		Solid State Power Capacity	8 kW		

Add Transmitter Information

Auxiliary	New Transmitter Costs					
Transmitter	Section	Question	Response			
	New Transmitter	Use	Auxiliary (Backup)			
		Change Type	Purchase New			
		Is this a request for upgraded equipment?	No			
		Manufacturer				
		Model	VAXTE-12			
		Transmitter Type	Solid State			
		Solid State Cooling	Air Cooled			
		Solid State Power capacity	8.6 kW			
		Justification for New Transmitter	Old transmitter cannot be re- tuned per manufacturers notification.			

Auxiliary Other Transmitter Costs

Transmitter	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	No
		Switchgear (industrial 800 amp)	No
		Transformer (480V)	No
		Power	N/A
		Rigid Conduit and Wiring	Yes
		Size	3 inches
		Length	100.0 feet
		Other Electrical Service	Yes

	Description	Additional electrical services required for transmitter installation.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Туре	Heating and Cooling
	Size	5 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Auxiliary Other Transmitter Cost Not Listed

Transmitter Information not provided.

Primary	Existing Transmitter Information				
Transmitter	Section	Question	Response		
	Existing Transmitter Description	Type of change	Purchase New		
		Use	Primary (Main)		
		Description of Use	N/A		
		Ownership	Owned		
		Owner	N/A		
		Site	N/A		
		Is this transmitter currently shared with another station?	No		
		Is this transmitter currently in operating condition?	Yes		
	Existing Transmitter	Manufacturer			
	Manufacturer and Type	Model	PTCD20P2I		
		Year	1994		
		Туре	Solid State		
		Solid State Cooling	Air Cooled		
		Solid State Power Capacity	8 kW		

Existing Transmitter Information

Primary	New Transmitter Costs		
Transmitter	Section	Question	Response
	New Transmitter	Use	Primary (Main)
		Change Type	Purchase New
		Is this a request for upgraded equipment?	No
		Manufacturer	
		Model	VAXTE-12
		Transmitter Type	Solid State
		Solid State Cooling	Air Cooled
		Solid State Power capacity	9.6 kW
		Justification for New Transmitter	Old transmitters not re-tuneble per manufacturer's notification.

Primary Other Transmitter Costs

Transmitter	Section	Question	Response
	Electrical Service	Service Entrance (3 phases 800A 208V)	No
		Switchgear (industrial 800 amp)	No
		Transformer (480V)	No
		Power	N/A
		Rigid Conduit and Wiring	Yes
		Size	3 inches
		Length	100.0 feet
		Other Electrical Service	Yes

	Description	Additional electrical services required for transmitter installation.
HVAC Service	Does the replacement transmitter require HVAC Service?	Yes
	Туре	Heating and Cooling
	Size	5 tons
	Other Size	N/A
Transmitter Building Addition/Modification or Leasehold Improvement	Does the Transmitter Building require an addition, modification, other leashold improvement?	No
	Size	N/A
Channel 14 Costs	Is an RF Consulting Engineer needed?	N/A
	Is a channel 14 Mask Filer needed?	N/A
	Is additional field engineering time needed?	N/A
	Number of Days	N/A

Primary Other Transmitter Cost Not Listed

Transmitter Information not provided.

Antennas Section		Question	Response
Antenna Rela	ated Expenses	Do you have antenna related expenses?	Yes

Auxiliary	Add Antenna Information			
Antenna	Section	Question	Response	
	Existing Antenna Description	Type of change	Purchase New	
		Antenna Use	Auxiliary (Backup)	
		Description of Use	Full Power Backup Antenna	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is this antenna currently shared with any other stations?	No	
		Is this antenna directional?	No	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	No	
	Existing Antenna Manufacturer and Type	Class	Full Power	
		Mounting	Side Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Horizontal	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels	N/A	
		Design power capacity in use	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Other Antenna Type	N/A	

ERP: (Effective Radiated Power)	35.0 kW
Manufacturer	
Model	TLS-V8BB- R
Year	2017

New Antenna Costs			
Section	Question	Response	
New Antenna Description	Use	Auxiliary (Backup)	
	Description of Use	Full Power backup antenna	
	Change Type	Purchase New	
	Is this a request for upgraded equipment?	No	
	Ownership	Owned	
	Owner	N/A	
	Is antenna shared?	No	
	Is antenna directional?	No	
	Will antenna be located on or in close proximity to an antenna farm?	No	
New Antenna	Class	Full Power	
Manufacturer and Types	Mounting	Side Mount	
	Antenna position in stack	Not in Stack	
	Polarization	Horizontal	
	Туре	Slotted Coaxial	
	Number of Stations Supported	N/A	
	Number of Panels/Bays	N/A	
	Lower Limit	N/A	
	Upper Limit	N/A	
	Design power capacity in use	N/A	
	Other Antenna Type	N/A	
	ERP: (Effective Radiated Power)	35.0 kW	
	Manufacturer		
	New Antenna Description	New Antenna Description Use Description of Use Description of Use Change Type Is this a request for upgraded equipment? Ownership Owner Is antenna shared? Is antenna directional? Will antenna be located on or in close proximity to an antenna farm? Class Manufacturer and Types Class New Antenna Polarization Type Number of Stations Supported Number of Panels/Bays Lower Limit Upper Limit Design power capacity in use Other Antenna Type ERP: (Effective Radiated Power)	

Model	TLS-V8BB- R
Year	2019
Justification for New Antenna	Old antenna cannot be re-tuned

Auxiliary	Other Antenna Costs		
Antenna	Section	Question	Response
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	
		Туре	
		Number of channels supported	N/A
E		Frequencies of channels supported	N/A
		Frequency	N/A
		Do you need a combiner output splitter /switcher for dual feed lines?	N/A
	Elbow Complex	Do you require the separate purchase of the Elbow Complex?	No
		Broadband or Single Channel?	N/A
		Feed Line Size	N/A
	Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	Yes
	Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
	Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Other Antenna Costs

Other Antenna Cost Not Listed

Auxiliary Antenna

Name	Description
Trans Test 6-75	Trans Test 6-75
Flex Line	Flex Line
XFMR	XFMR
Shipping	\$5,400
Reducer	Reducer

Primary	Existing Antenna Information			
Antenna	Section	Question	Response	
	Existing Antenna Description	Type of change	Purchase New	
		Antenna Use	Primary (Main)	
		Description of Use	N/A	
		Ownership	Owned	
		Owner	N/A	
		Site	N/A	
		Is the existing antenna shared with another station or stations?	No	
		Is the existing antenna directional?	No	
		Is antenna in operating condition?	Yes	
		Is antenna located on or in close proximity to an antenna farm?	No	
	Existing Antenna Manufacturer and Type	Class	Full Power	
		Mounting	Top Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Circular	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels	N/A	
		Design power capacity in use	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	35.0 kW	

Manufacturer	
Model	TCL-12A13
Year	1999

Primary	New Antenna Costs			
Antenna	Section	Question	Response	
	New Antenna Description	Use	Primary (Main)	
		Description of Use	N/A	
		Change Type	Purchase New	
		Is this a request for upgraded equipment?	No	
		Ownership	Owned	
		Owner	N/A	
		Is antenna shared?	No	
		Is antenna directional?	No	
		Will antenna be located on or in close proximity to an antenna farm?	No	
	New Antenna Manufacturer and Types	Class	Full Power	
		Mounting	Top Mount	
		Antenna position in stack	Not in Stack	
		Polarization	Circular	
		Туре	Slotted Coaxial	
		Number of Stations Supported	N/A	
		Number of Panels/Bays	N/A	
		Lower Limit	N/A	
		Upper Limit	N/A	
		Design power capacity in use	N/A	
		Other Antenna Type	N/A	
		ERP: (Effective Radiated Power)	35.0 kW	
		Manufacturer		
			1	

Model	THV-12A11 /VP-R O4 (SP)
Year	2019
Justification for New Antenna	Station's licensed circularly polarized, top-mount, main antenna cannot be re-tuned and must be replaced for new channel assignment

Primary Other Antenna Costs

Antenna	Section	Question	Response
	Combiner for Shared Antenna	Do you need a Combiner for a Shared Antenna?	No
		Туре	
		Number of channels supported	N/A
		Frequencies of channels supported	N/A
		Frequency	N/A
		Do you need a combiner output splitter /switcher for dual feed lines?	N/A
	Elbow Complex	Do you require the separate purchase of the Elbow Complex?	Yes
		Broadband or Single Channel?	Single Channel
		Feed Line Size	6 1/8 inches inches

Side Mount Brackets	Do you require the separate purchase of side mount brackets for a high power antenna?	No
Pattern Scatter Analysis	Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna?	No
Sweep Test	Do you require the sweep testing of transmission line and antenna?	Yes

Other Antenna Cost Not Listed

Primary Antenna

Name	Description
New Top Plate	Existing top-plate and/or bolt pattern may not work for new top-mount antenna
Misc Antenna Items	Misc Antenna Items: Items 3 and 5-8 on attached Dielectric Quote 800056CMZ-3
Shipping	\$6,800

Transmissior	n Seffien	Question	Response
	Transmission Line Related Expenses	Do you have transmission line related expenses?	Yes

Add Transmission Line Transmission Line

ransmissio	n Line Section	Question	Response
	Existing Transmission Line Description	Type of change	Utilize Existing
		Use	Primary (Main)
		Description of Use	N/A
		Ownership	Owned
		Owner	N/A
		Site	N/A
-		Is this transmission currently shared with any other stations?	No
		Is Transmission Line in operating condition?	Yes
	Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
		Туре	Rigid
		Diameter	4 1/16 inches
		Other Diameter	N/A
		Segment Length	20 inches
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	1300 feet per run

Other Transmission Line Expenses Not Listed Primary

Transmission	n Line	Description
	TX Line Sweep	Sweep required to verify post-transition channel measures well on existing line.

Add Transmission Line Transmission Line

ssion	Section	Question	Response
	Existing Transmission Line Description	Type of change	Utilize Existing
		Use	Auxiliary (Backup)
		Description of Use	Used for maintenane a and primary facility repair
		Ownership	Owned
		Owner	N/A
		Site	N/A
		Is this transmission currently shared with any other stations?	No
		Is Transmission Line in operating condition?	Yes
	Existing Transmission Line Manufacturer and Type	Manufacturer	Dielectric
		Туре	Rigid
		Diameter	6 1/8 inches
		Other Diameter	N/A
		Segment Length	20 inches
		Other Segment Length	N/A
		Number of parallel runs	1
		Length	1250 feet per run

Auxiliary	Other Transmission Line Expenses Not Listed		
Transmissio	nLine	Description	
	TX Line Sweep	Sweep required to verify post-transition channel measures well on existing line.	

Tower	Section	Question	Response
Equipment And Rigging Costs	Tower Equipment or Rigging Costs Changes	Do you have tower equipment or rigging costs changes?	Yes

Response

Modify Existing

Primary	Existing Tower		
Tower	Section	Question	
	Existing Tower Description	Type of change	
		Tower Use	
		Description of Use	
		Ownership	
		Is this tower consider Complex?	
		Is this tower currently shared with any c stations?	

	Tower Use	Primary (Main)
	Description of Use	N/A
	Ownership	Owned
	Is this tower consider Complex?	No
	Is this tower currently shared with any other stations?	No
	One or more FM, AM or TV radio broadcaster(s)	N/A
	Others Types of Users	N/A
	Is tower documented for structural analysis?	No
	Is tower compliant with Rev G?	No
Existing Tower Structure	Do you have a tower registration number?	Yes
Registration	ASR Number	1043102
Coordinates (NAD83 (North American Datum	Latitude (NAD83)	36° 49' 00.0" N-
of 1983))	Longitude (NAD83)	076° 28' 05.0" W-
	Overall Structure Height	1225.05 feet
	Support Structure Height	1095.79 feet
	Ground Elevation Above Mean Sea Level (AMSL)	23.95 feet

	Structure Type	TOWER - Free Standing or Guyed Structure
	Tower Owner	WVEC TELEVISION INC
	Date Constructed	06/24/1999

Tower Modification Costs

ower	Section	Question
	Engineering Study	Please what t required, if an
	Tower Reinforcements	Please select

Primary Tower

Section	Question	Response
Engineering Study	Please what type of engineering study is required, if any:	Study needed for undocumented /poorly documented tower
Tower Reinforcements	Please select whether tower reinforcements are needed:	Major Reinforcements needed

Tower Rigging Costs Prima

Primary Tower	Tower Rigging Costs			
	Section	Question	Response	
	Tower Rigging Costs	Complex Tower	N/A	
	Helicopter Services Required	Are helicopter services required?	No	

Other Tower Expenses Not Listed Primary

Tower Information not provided.

Outside Professional	Section	Question	Response
	I Services Costs Outside Project Management Services	Do you require outside project management services?	Yes
		Number of Hours	750
		Explanation	It will be necessary to schedule and coordinate multiple vendors, complete progress reports, and update Schedule 399s. Station does not have available personnel or personnel trained in project management for such complex projects.
	Outside RF consulting Engineering Services	Perform engineering study for new channel assignment and antenna development	Yes
		Prepare engineering section of Form FCC Construction Permit Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare engineering section of Form FCC License to Cover Application	Yes
		For Auxiliary Facility	No
		For Main Facility	Yes
		Prepare request for Special Temporary Authority	Yes

uantity o you have Distributed Transmission ystem engineering services? ritical Facility errain-Shielded Facility repare and file Form FCC Construction ermit Application or Auxiliary Facility or Main Facility repare and file Form FCC License to	2 N/A N/A Yes No Yes
ystem engineering services? ritical Facility errain-Shielded Facility repare and file Form FCC Construction ermit Application or Auxiliary Facility or Main Facility repare and file Form FCC License to	N/A N/A Yes No
errain-Shielded Facility repare and file Form FCC Construction ermit Application or Auxiliary Facility or Main Facility repare and file Form FCC License to	N/A Yes No
repare and file Form FCC Construction ermit Application or Auxiliary Facility or Main Facility repare and file Form FCC License to	Yes No
ermit Application or Auxiliary Facility or Main Facility repare and file Form FCC License to	No
or Main Facility repare and file Form FCC License to	
repare and file Form FCC License to	Yes
•	
over Application	Yes
or Auxiliary Facility	No
or Main Facility	Yes
repare request for Special Temporary uthority	Yes
uantity	2
EPA Section 106 environmental review	No
nvironmental Assessment	No
SR Modification	Yes
AA Consultation (including preparation of AA Form 7460)	Yes
egotiation of Lease and other Matter for nared Locations	Yes
repare or Review FCC Form 399 for eimbursement	Yes
ddress transition timing and coordination sues w/ other stations and wireless oviders	Yes
omprehensive coverage verification via eld study	Yes
F exposure measurements	Yes
dditional Field Engineering Service	Yes
	or Auxiliary Facility or Main Facility epare request for Special Temporary athority uantity EPA Section 106 environmental review environmental Assessment SR Modification AA Consultation (including preparation of AA Form 7460) egotiation of Lease and other Matter for eared Locations epare or Review FCC Form 399 for eimbursement ddress transition timing and coordination sues w/ other stations and wireless oviders omprehensive coverage verification via ld study exposure measurements

Number of Days	20
Justification	\$2,500 per
	site visit
	including
	expenses x
	20 days. It is
	necessary to
	survey the
	site, plan the
	equipment,
	develop
	specifications
	for
	purchasing,
	& oversee
	multiple
	vendor RF
	projects.
	Station does
	not have
	available
	personnel
	trained in
	such
	services.

Outside Other Professional Services Expenses Not Listed

Professional	Services Costs	Description
	Other Legal Services	Other Legal Services related to the DTV Repack
	Pre filing site review	Outside engineering firm to review all sites before filling.
	Other Engineering Services	Fewer Proj Mgt "PM" tasks are req'd & Other Engineering Services "OES" are req'd, so the PM total was reduced to 750 hrs (\$112,500.00 at \$150/hr), a new OES comp was created & funded with \$ from PM. See attachment titled "KGA quote to WVEC for OES.pdf"

Other Expenses	Section	Question	Response
	AM Pattern Disturbance	Is an Impact Study needed?	Yes
		Is Remediation needed?	Yes
	Facility Expenses	Name	N/A
		Other Distributed Transmission System Expenses Not listed	N/A
		Name	N/A
		Is Notification of a Medical Facility required as a result of DTV broadcasting?	Yes
	Permit and Filing Costs	Local Zoning	Yes
		Non-zoning permits	Yes
		BLM or NFS Coordination	No
		FCC Construction Permit Minor Change	Yes
		FCC License to Cover Application	Yes
		FCC Special Temporary Authority Application	Yes
	Other Miscellaneous Expenses	Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)?	Yes
		Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs?	Yes
		Does this relocation require Equipment Storage?	Yes
		Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change?	Yes
		Does this relocation require MVPD Notification of a Channel Change?	Yes

Other Expenses Not Listed

Other Expenses	Other Expenses Not Listed		
	Name	Description	
	Internal labor	Local and Corporate labor Costs	

Transmitters

Cost Information

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Transmitter VAXTE-12	\$386,700.00	\$406,381.40		\$144,371.40	
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	\$331,500.00	\$351,481.40	Per Gates AIR Quote. Includes TAX	\$144,371.40	N/A
3" Rigid Conduit and Wiring (Cost per foot)	\$5,200.00	\$4,900.00	N/A	N/A	N/A
Other Electrical Service: Additional electrical services required for transmitter installation.	\$25,000.00	\$25,000.00	Additional electrical services required for transmitter installation.	N/A	N/A

\$25,000.00	\$25,000.00	Additional HVAC is required for operation of new air- cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.	N/A	N/A
\$386,700.00	\$406,381.40		\$144,371.40	
\$25,000.00	\$25,000.00	Additional HVAC is required for operation of new air- cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.	N/A	N/A
\$331,500.00	\$351,481.40	Per Gates Air quote. Includes TAX	\$144,371.40	N/A
	\$386,700.00	\$386,700.00 \$406,381.40 \$25,000.00 \$25,000.00	HVAC is required for operation of new air- cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.\$386,700.00\$406,381.40\$25,000.00\$25,000.00\$25,000.00Additional HVAC is required for operation of new air- cooled solid-state transmitter while still operating with main air-cooled transmitter\$23,000.00\$406,381.40\$25,000.00\$25,000.00\$25,000.00Additional HVAC is required for operation of new air- cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.\$331,500.00\$351,481.40Per Gates Air quote. Includes	HVAC is required for operation of new air- cooled solid-state transmitter while still operating with main air-cooled transmitter during testing period.HVAC is state, state state, state transmitter while still operating with main air-cooled transmitter\$386,700.00\$406,381.40\$144,371.40\$25,000.00Additional HVAC is required for operation of new air- cooled solid-state transmitter while still operation of new air- cooled solid-state transmitter while still operating with main air-cooled solid-state transmitter while still operating with main air-cooled solid-state transmitter while still operating with main air-cooled transmitterN/A\$331,500.00\$351,481.40Per Gates Air quote. Includes\$144,371.40

Other Electrical Service: Additional electrical services required for transmitter installation.	\$25,000.00	\$25,000.00	Additional electrical services required for transmitter installation.	N/A	N/A
Sub-total	\$773,400.00	\$812,762.80	N/A	\$288,742.80	N/A
Total for all systems	\$2,573,262.00	\$2,549,322.80	N/A	\$741,773.34	N/A

Components

Actual Information Description	File Name	
High VHF - Air Cooled Solid State Transmitter 6.5 . 12.5 kW	Component Description: Amount:	Gates inv #JW30004556-1 Primary Transmitter 50 pct pmt 1 UL20181207jgv1 \$144,371.40
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	
Other Electrical Service: Additional electrical services required for transmitter installation.	Information not provided.	
Other HVAC Service Type: H Size:5 (Other)	Information not provided.	
Other HVAC Service Type: H Size:5 (Other)	Information not provided.	

Solid State Transmitter 6.5 . 12.5 kW	Component Description:	Gates inv #JW30004555-1 Aux Transmitter 50 pct pmt 1 UL20181207jgv1
	Amount:	\$144,371.40
3" Rigid Conduit and Wiring (Cost per foot)	Information not provided.	
Other Electrical Service: Additional electrical services required for transmitter installation.	Information not provided.	

Antennas

Cost Information

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Antenna THV-12A11 /VP-R O4 (SP)	\$446,908.00	\$445,978.00		\$369,157.40	
Shipping	\$6,800.00	\$6,800.00	N/A	N/A	N/A
Misc Antenna Items	\$22,078.00	\$22,078.00	Misc Antenna Items: Items 3 and 5-8 on attached Dielectric Quote 800056CMZ- 3	\$19,870.20	N/A
New Top Plate	\$25,000.00	\$25,000.00	Existing top- plate and/or bolt pattern may not work for new top- mount antenna	\$20,871.00	N/A
High VHF - High Power Top Mount One Station elliptically or circularly polarized	\$374,000.00	\$374,000.00	Per Widelity Estimate	\$313,388.00	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	N/A	\$5,760.00	N/A

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	\$12,300.00	\$11,700.00	N/A	\$9,268.20	N/A
Auxiliary Antenna TLS-V8BB- R	\$129,636.00	\$116,469.00		\$49,981.05	
Reducer	\$1,330.00	\$1,330.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$598.50	N/A
Shipping	\$5,400.00	\$5,400.00	N/A	N/A	N/A
XFMR	\$1,858.00	\$1,858.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$836.10	N/A
Flex Line	\$6,700.00	\$6,700.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$3,015.00	N/A
Trans Test 6-75	\$2,118.00	\$2,118.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$953.10	N/A

Side mount brackets for high power antennas (if not included in antenna base cost)	\$23,150.00	\$10,313.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$4,640.85	N/A
Sweep test of existing antenna	\$6,730.00	\$6,400.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$2,880.00	N/A
High VHF - High Power Side Mount One Station horizontally polarized	\$82,350.00	\$82,350.00	See attached PDF titled "Die MAN01456 v191007jgv1. pdf"	\$37,057.50	N/A
Sub-total	\$576,544.00	\$562,447.00	N/A	\$419,138.45	N/A
Total for all systems	\$2,573,262.00	\$2,549,322.80	N/A	\$741,773.34	N/A

Components

Actual Information Description	File Name	
Shipping	Information not provided.	
Misc Antenna Items	Component Description:	Die MAN00916 Reducer 45 pct pmt 1 v190531jgv1
	Amount:	\$598.50

Component Description: Amount:	Die MAN00916 TL Flg 45 pct pmt 1 v190531jgv1 \$773.55
Component Description: Amount:	Die MAN00916 Xfrmr 45 pct pmt 1 v190531jgv1 \$836.10
Component Description: Amount:	Die MAN00916 Test Transition 45 pct pmt 1 v190531jgv1 \$953.10
Component Description: Amount:	Die MAN00916 Feed-thru 45 pct pmt 1 v190531jgv1 \$6,773.85
Component Description: Amount:	Die MAN01198 v190809pmv1 \$6,773.85
Component Description: Amount:	Die MAN01198 v190809pmv1 \$836.10
Component Description: Amount:	Die MAN01198 v190809pmv1 \$773.55
Component Description: Amount:	Die MAN01198 v190809pmv1 \$953.10

	Component Description: Amount:	Die MAN01198 v190809pmv1 \$598.50
New Top Plate		
	Component Description:	Die MAN00916 Top Plate 45 pct
	Amount:	pmt 1 v190531jgv1 \$10,435.50
	Component Description:	Die MAN01198
	Amount:	v190809pmv1 \$10,435.50
High VHF - High Power Top Mount One Station		
elliptically or circularly polarized	Component Description:	Die MAN00916 Antenna 45 pct
	Amount:	pmt 1 v190531jgv1 \$141,024.60
	Component Description:	Die MAN01198
	Amount:	v190809pmv1 \$141,024.60
	Component Description:	Die 533002
	Amount:	v190809pmv1 \$31,338.80
Sweep test of existing antenna		
	Component Description:	Die MAN00916 Sweep 45 pct pmt 1 v190531jgv1
	Amount:	\$2,880.00
	Component Description:	Die MAN01198 v190809pmv1
	Amount:	\$2,880.00

Elbow complex, single channel, at antenna input, per 6 1/8. feedline (if needed)	Component Description:	Die MAN00916 Elbow complex 45 pct pmt 1
	Amount:	v190531jgv1 \$4,634.10
	Component Description: Amount:	Die MAN01198 v190809pmv1 \$4,634.10
Reducer		
	Component Description:	Die MAN01456 Aux ant reducer 45 pct pmt 1 v191007jgv1
	Amount:	\$598.50
Shipping	Information not provided.	
XFMR		
	Component Description:	Die MAN01456 Aux ant XFMR 45 pct pmt 1
	Amount:	v191007jgv1 \$836.10
Flex Line		
	Component Description:	Die MAN01456 Aux ant flex line 45 pct pmt 1 v191007jgv1
	Amount:	\$3,015.00
Trans Test 6-75		
	Component Description:	Die MAN01456 Aux ant trans test 45 pct pmt 1 v191007jgv1
	Amount:	\$953.10

high power antennas (if not included in antenna base cost)	Component Description:	Die MAN01456 Aux ant side mt bkts 45 pct pmt 1 v191007jgv1
	Amount:	\$4,640.85
Sweep test of existing		
antenna	Component Description:	Die MAN01456
		Aux ant sweep 4
		pct pmt 1
		v191007jgv1
	Amount:	\$2,880.00
High VHF - High Power		
Side Mount One Station	Component Description:	Die MAN01456
horizontally polarized		Aux ant 45 pct pr
		1 v191007jgv1
	Amount:	\$37,057.50

Transmission Line

Cost Information

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description Primary Transmission Line	Predetermined Cost Estimate \$6,400.00	Estimated Cost \$6,400.00	Estimated Cost Justification	Actual Cost \$1,990.98	Actual Cost Justification
TX Line Sweep	\$6,400.00	\$6,400.00	Sweep required to verify post- transition channel measures well on existing line.	\$1,990.98	N/A
Auxiliary Transmission Line	\$6,400.00	\$6,400.00		\$1,990.98	
TX Line Sweep	\$6,400.00	\$6,400.00	Sweep required to verify post- transition channel measures well on existing line.	\$1,990.98	N/A
Sub-total	\$12,800.00	\$12,800.00	N/A	\$3,981.96	N/A
Total for all systems	\$2,573,262.00	\$2,549,322.80	N/A	\$741,773.34	N/A

Components

Actual Information	
Description	File Name

TX Line Sweep		
	Component Description:	Modern inv #2098
		Line sweep Main
		UL20181221jgv1
	Amount:	\$1,990.98
TX Line Sweep		
	Component Description:	Modern inv #2098
		Line sweep Aux
		UL20181221jgv1
	Amount:	\$1,990.98

Tower Equipment and Rigging Costs

Cost Information

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Primary Tower TOWER	\$657,800.00	\$625,000.00		\$0.00	
Tower mapping for an undocumented /poorly documented tower and preparation of documentation necessary for tower load study	\$26,300.00	\$25,000.00	N/A	N/A	N/A
Major tower reinforcement /modifications	\$421,000.00	\$400,000.00	N/A	N/A	N/A
Tall Tower (greater than 500')	\$210,500.00	\$200,000.00	N/A	N/A	N/A
Sub-total	\$657,800.00	\$625,000.00	N/A	\$0.00	N/A
Total for all systems	\$2,573,262.00	\$2,549,322.80	N/A	\$741,773.34	N/A

Components

Information not provided.

Outside Professional Services

Cost Information

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cos Justificatio
Outside Professional Services	\$385,610.00	\$371,250.00		\$26,640.13	
Other Engineering Services	\$37,500.00	\$37,500.00	Fewer Project Management "PM" tasks are required & Other Engineering Services "OES" are required, therefore the PM total has been reduced to 750 hrs (\$112,500.00 at \$150/hr), & a new OES category has been created & funded with the money removed from PM.	\$700.00	N/A
Pre filing site review	\$19,500.00	\$19,500.00	N/A	N/A	N/A
Other Legal Services	\$10,000.00	\$10,000.00	Other Legal Services related to the DTV Repack	\$424.09	N/A

Additional Field Engineering Service, 20 Days	\$50,000.00	\$50,000.00	\$2,500 per site visit including expenses x 20 days. It is necessary to survey the site, plan the equipment, develop specifications for purchasing, & oversee multiple vendor RF projects. Station does not have available personnel trained in such services.	N/A	N/A
RF Exposure Measurements	\$21,050.00	\$20,000.00	N/A	N/A	N/A
Comprehensive coverage verification via field study, if needed	\$84,200.00	\$80,000.00	Per Widelity estimate	N/A	N/A
FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	\$2,105.00	\$2,000.00	N/A	N/A	N/A
ASR modification (prepare FCC Form 854)	\$2,105.00	\$2,000.00	N/A	N/A	N/A

Attorney Fees - Prepare and File request for Special Temporary Authorization	\$7,360.00	\$7,000.00	N/A	N/A	N/
Attorney Fees - Negotiation of lease and other matters for shared locations	\$4,210.00	\$4,000.00	N/A	N/A	N/
Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application	\$2,365.00	\$2,250.00	N/A	N/A	N//
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	\$5,260.00	\$5,000.00	N/A	N/A	N//
Project management of the transition	\$118,500.00	\$100,800.00	N/A	\$20,596.04	N//
Address transition timing and coordination issues w/ other stations and wireless	\$2,630.00	\$2,500.00	N/A	N/A	N/#

Prepare and or review reimbursement form	\$2,630.00	\$14,200.00	Fewer PM tasks are needed & 399 work is needed, so the PM total has been reduced to \$150x672hrs (\$100800), & "Prepare & or review reimbursement form" has been increased with part of the \$ removed from PM	\$4,920.00	N/A
Perform engineering study for new channel assignment and antenna development	\$7,360.00	\$7,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	\$3,155.00	\$3,000.00	N/A	N/A	N/A
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	\$1,580.00	\$1,500.00	N/A	N/A	N/A
Prepare request for Special Temporary Authorization	\$4,100.00	\$3,000.00	N/A	N/A	N/A
Sub-total	\$385,610.00	\$371,250.00	N/A	\$26,640.13	N/A

Total for all	\$2,573,262.00	\$2,549,322.80	N/A	\$741,773.34	N/A
systems					

Components

Actual Information Description	File Name	
Other Engineering Services		
	Component Description:	Osborn inv #29769 Engineering Srvcs UL20181126jg v1
	Amount:	\$700.00
Pre filing site review	Information not provided.	

	Component Description:	Covington 60801032
	Amount:	v190715jgv2 \$70.43
	Component Description:	Covington 60801029 v190712jgv2
	Amount:	\$144.71
	Component Description:	Covington inv #60796723 Variou Legal UL20181024jgv1
	Amount:	\$174.42
	Component Description:	Covington 60805585 v190513pmv1
	Amount:	\$34.53
	Component Description:	Covington 60801032
	Amount:	v190530jgv2 \$70.43
	Amount: Component Description:	v190530jgv2
		v190530jgv2 \$70.43 Covington 60801029
Additional Field Engineering Service, 20 Days	Component Description:	v190530jgv2 \$70.43 Covington 60801029 v190513pmv1
Engineering Service, 20	Component Description: Amount:	v190530jgv2 \$70.43 Covington 60801029 v190513pmv1

FAA consultant, including cost of preparing FAA Form 7460 (Notice of Proposed Construction), if needed for height increase	Information not provided.	
ASR modification (prepare FCC Form 854)	Information not provided.	
Attorney Fees - Prepare and File request for Special Temporary Authorization	Information not provided.	
Attorney Fees - Negotiation of lease and other matters for shared locations	Information not provided.	
Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application	Information not provided.	
Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Project management of the transition		
	Component Description:	Osborn 32968 v190617pmv1
	Amount:	\$525.00
	Component Description:	Osborn 34581 v190810jgv1
	Amount:	\$525.00
	Component Description:	Osborn 33666 v190618pmv1
	Amount:	\$825.00
	Component Description:	Osborn 32828
	Amount:	v190613pmv1 \$525.00

	Component Description: Amount:	Osborn inv #29769 Prof srvcs 180526 - 170629 UL20181126jg v1 \$1,575.00
	Component Description: Amount:	Inv 29210 WVEC Proj Mgt 180428- 180525 UL20180706jg v1 \$1,275.00
	Component Description: Amount:	Osborn inv #29769 Form 387 2018 Q2 UL20181126jg v1 \$337.50
	Component Description: Amount:	Osborn inv #26016 Prof srvcs 170530 - 170728 UL20181107jg v1 \$14,408.54
	Component Description:	Osborn inv #28584 Proj mgt thru 180330 UL20190326jgv1
	Amount:	\$450.00
	Component Description:	Osborn inv #28994 Proj mgt 180331- 180427 UL20190326jgv1
	Amount:	\$150.00
Address transition timing and coordination issues w/ other stations and wireless	Information not provided.	

Prepare and or review reimbursement form	Component Description: Amount:	Osborn 33666 v190618pmv1 \$612.50
	Component Description: Amount:	Osborn 34581 v190810jgv1 \$1,107.50
	Component Description: Amount:	Osborn inv #28994 Amend 399 Form UL20190326jgv1 \$3,200.00
Perform engineering study for new channel assignment and antenna development	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), Construction Permit Application	Information not provided.	
Prepare engineering section of FCC Form 2100 (main), License to Cover Application	Information not provided.	
Prepare request for Special Temporary Authorization	Information not provided.	

Other Expenses

Cost Information

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

Description	Predetermined Cost Estimate	Estimated Cost	Estimated Cost Justification	Actual Cost	Actual Cost Justification
Other Expenses	\$167,108.00	\$165,063.00		\$3,270.00	
Internal labor	\$22,228.00	\$22,228.00	N/A	N/A	N/A
MVPD Notification of Channel Change	\$6,000.00	\$6,000.00	promotional campaign for MVPD notification	N/A	N/A
Develop and air announcement of upcoming channel change	\$6,000.00	\$6,000.00	40 hours at \$150 per hour to shoot,write, produce and edit local informational spot.	\$3,270.00	N/A
Equipment Storage	\$15,000.00	\$15,000.00	2 flat bed trailer storage for 6 months per Dielectric.	N/A	N/A
Equipment Delivery and Handling Charges	\$25,000.00	\$25,000.00	N/A	N/A	N/A
Disposal Costs (for equipment and other waste, net of any salvage value)	\$25,000.00	\$25,000.00	N/A	N/A	N/A
Non-zoning permits	\$25,000.00	\$25,000.00	N/A	N/A	N/A

			construction for permit.		
FCC Filing Fees - Special Temporary Authorization request	\$195.00	\$190.00	N/A	N/A	N/A
AM Pattern Disturbance Impact study	\$7,890.00	\$7,500.00	N/A	N/A	N/A
AM Pattern Disturbance Remedy	\$21,050.00	\$20,000.00	N/A	N/A	N/A
DTV Medical Facility Notification	\$11,550.00	\$11,000.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 minor change CP application	\$1,110.00	\$1,070.00	N/A	N/A	N/A
FCC Filing Fees - Form 2100 license to cover application	\$335.00	\$325.00	N/A	N/A	N/A
Sub-total	\$167,108.00	\$165,063.00	N/A	\$3,270.00	N/A
Total for all	\$2,573,262.00	\$2,549,322.80	N/A	\$741,773.34	N/A

Components

Actual Information Description	File Name
Internal labor	Information not provided.
MVPD Notification of Channel Change	Information not provided.

Develop and air announcement of upcoming channel change	Component Description:	2C Media inv #203806 Creatior of channel chang announcement
	Amount:	UL20181016jgv1 \$3,270.00
Equipment Storage	Information not provided.	
Equipment Delivery and Handling Charges	Information not provided.	
Disposal Costs (for equipment and other waste, net of any salvage value)	Information not provided.	
Non-zoning permits	Information not provided.	
Local Zoning	Information not provided.	
FCC Filing Fees - Special Temporary Authorization request	Information not provided.	
AM Pattern Disturbance Impact study	Information not provided.	
AM Pattern Disturbance Remedy	Information not provided.	
DTV Medical Facility Notification	Information not provided.	
FCC Filing Fees - Form 2100 minor change CP application	Information not provided.	
FCC Filing Fees - Form 2100 license to cover application	Information not provided.	

Cost Information	Grand Total				
		Predetermined Cost Estimate	Estimated Cost	Actual Cost	
	Total for all systems	\$2,573,262.00	\$2,549,322.80	\$741,773.34	

Reimbursem	entestiatus	Response
	The facility has ceased operating on its pre- auction channel.	No
	Construction of final facilities or all necessary modifications are complete.	No
	All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator.	No

Certification	Section	Question	Response
	Submission of Estimated Expenses Statements	WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.	
		 The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 	
		2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	
		3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.	

- 4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
- 5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
- 6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
- 7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.	
I declare, under penalty of perjury, that I am an authorized representative of the above- named applicant for the Authorization(s) specified above.	Jeffrey C Gehman <i>Engineering</i> <i>Associate</i>
	10/07/2019

Certification	Section	Question	Response
	Submission of Actual Cost Documentation Statements	WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISIONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733).	
		 The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 	
		2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct.	
		3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations.	

- 4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
- 5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster **Relocation Fund are** necessary to change channels (full power and Class A stations) and/or otherwise modify a television station's facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD).
- The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
- 7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

 8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission. 9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein 		
an a nam	requested. clare, under penalty of perjury, that I am uthorized representative of the above- ed applicant for the Authorization(s) cified above.	Jeffrey C Gehman Engineering Associate 10/07/2019

Attachments